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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/790,313	03/01/2004	Sadayuki Shoudai	890050.460	9340

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SEATTLE, WA 98104-7092

EXAMINER
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FALASCO, LOUIS V

ART UNIT	PAPER NUMBER
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1773

DATE MAILED: 07/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/790,313	<b>Applicant(s)</b> SHOUDAI ET AL.	
	<b>Examiner</b> Louis Falasco	<b>Art Unit</b> 1773	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 June 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 21-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 21-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 3/1/04 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)              |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>03/01/04</u> . | 6) <input type="checkbox"/> Other: _____.  |

## DETAILED ACTION

### *PAPERS RECEIVED*

1. The Information Disclosure Statement filed 03/01/04 is acknowledged.
2. The Election without traverse, the Amendment - amending claim 1 adding claims 21 to 42 and canceling all non-elected claims, and the Remarks filed 06/30/05 are acknowledged.

### *Election/Restriction of Invention*

3. All claims directed to non-elected invention have been cancelled by applicants' Amendment filed 06/30/05.

### *CLAIMS*

4. The claims are: 1 and 21 to 42, all claims are presently under consideration.

### ***Claim Rejections - 35 U.S.C. §102 and 35 U.S.C. §103***

#### *Statutory Basis*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

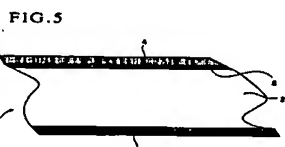
The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

### Rejections

5. Claims 1 and 21 to 42 are rejected under 35 U.S.C. 102 (a) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over either **Sakai et al** (US 5423239) or **Murao et al** (US 5827599).


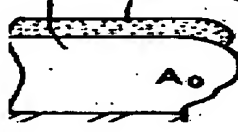
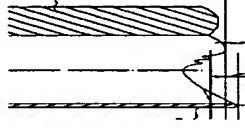
Either of **Sakai et al** or **Murao et al** teach the tape of these instant claims. *If* there is a difference between what has been instantly claimed and the tapes disclosed by **Sakai et al** and **Murao et al** it is merely in not reciting the tape's structure as having first and second *irregular raised and depressed patterns*. The instant claimed tape pattern,



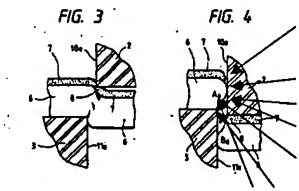
defined at instant Fig. 5 - i.e., - has sides with the tape having a first and second irregular raised and depressed pattern.

The 'irregular' claimed raised and depressed pattern is anticipated by either one of **Sakai et al** and **Murao et al** since the claimed raised and depressed pattern is

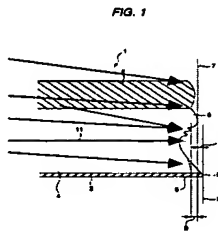
indistinguishable from the raised and depressed pattern taught by Sakai et al and Murao et al as illustrated below.

Instant application	Sakai et al	Murao et al
		

Alternatively the *irregular* quality of the claimed raised and depressed pattern would have at least been obvious as a matter of inherency. In support of this, the *irregular* quality is taught in Sakai et al and Murao et al as illustrated in areas of arrows



(←) inserted by the examiner e.g., Sakai et al at Fig. 4: and Murao



et al at Fig. 1: . This would have been at least been obvious to the worker of ordinary skill in the art since the shape is clearly apparent from the noted Fig. 4 of Sakai et al and Fig. 1 of Murao et al.

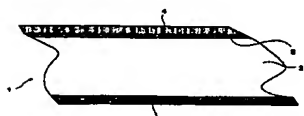
As regard the thickness and composition limitations of the instant dependant claims are taught in Sakai et al and Murao et al - see Sakai et al col. 4 lns 36-39 and cracked area of the cut tape noted at col. 5 lns 36-38 and layer, materials and thicknesses

at col. 6 lns 13-16 and col. 7 ln 23, 24, and 44 also see the composition at TABLE 1 or see Murao et al col. 4 lns 21-26 including comparable depth of cut at col. 6 lns 57-60, specifically the polyethylene terephthalate substrate and materials at col. 5 ln 24 in example 1.

6. Claims 1 and 21 to 27, 29 to 36 and 38 to 42 are rejected under 35 U.S.C. 102 (a) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over any one of Iida et al (US 6627334) or Kasuga (publications JA 09-153212 or JA 11-296839).

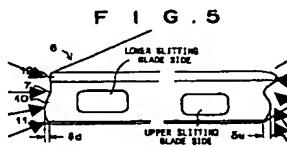
Iida et al or either of the Kasuga JA publications teach the tape of these instant claims. These including a magnetic recording layer on one side of a support with a backcoat layer on the opposite side. *If* there is a difference between what has been instantly claimed and the tapes of Iida et al either of the Kasuga JA publications and the instant claims it is in not reciting the tape structure as irregular *raised and depressed pattern*. The instant claimed tape is defined in the depiction at instant Fig. 5:

FIG. 5

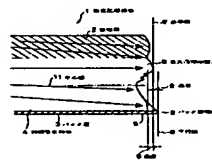


The 'irregular' feature of the claimed raised and depressed pattern is the same as that taught by either Iida et al or the Kasuga JA publications. The instant claimed invention would have been clearly anticipated by either Iida et al or the Kasuga JA. Alternatively the *irregular* quality of the claimed raised and depressed pattern would have at least been obvious *as a matter of inherency*. In support

of this, the irregular quality can be seen as intrinsic in the tape shape of **Iida et al** or either of the **Kasuga JA** publications - noting particular those areas with the arrows (→

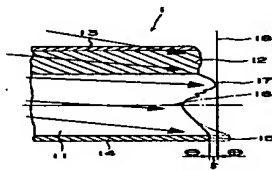
/←) inserted by the examiner in **Iida et al** - see Fig. 5:  and in

**Kasuga JA 09-153212** - see Drawing 1:



or in **Kasuga JA 11-296839** -

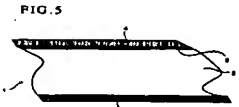
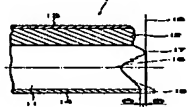
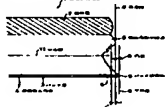
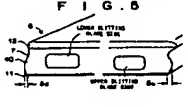
Drawing 1:



. The instant claimed shape would have been at least been obvious to the worker of ordinary skill in the art since they are visibly evident in Fig. 5 and the Drawings.

Summary of comparisons of instant invention with **Kasuga JA 11-296839**,

**Kasuga JA 09-153212, Iida et al:**

Instant invention	JA 11-296839	JA 09-153212	Iida et al
FIG. 5 			FIG. 5 

As regard the thickness and composition of dependant claims see **Iida et al** see backcoat layers of Fig. 6 and Fig. 7 and col. 7 lns 32-41, col. 12 lns 49-60, col. 13 lns 14-20 teachings and noting that these layers may be obviously be varied and optimized,

varying thicknesses to minimize waste or see **Kasuga** (JA 09-153212 or JA 11-296839 Detailed Description [0008] the references teach adjusting the raised and depressed portions of the tape and this too may be optimized to result of eliminating shavings waste and to improve tape performance. It has been held that discovering an optimum value for an effective result involves only routine skill in the art. *In re Boesch*, 617 F. 2d 272, 205 USPQ 215 (CCPA 180).

7. Claims 28 and 37 rejected under 35 U.S.C. 103(a) as being unpatentable over **Iida et al** (US 6627334) or **Kasuga** (JA 09-153212 or JA 11-296839) as applied to claims 1 and 21 to 27, 29 to 36 and 38 to 42 above, and further in view of either **Sakai et al** (US 5423239) or **Murao et al** (US 5827599).

**Iida et al** and **Kasuga** teach the requirements of these claims except they do not teach a polymer substrate of polyethylene terephthalate. However this polyethylene terephthalate material is a conventional substrate material, well known magnetic tape art and taught as conventional substrate material by either **Sakai et al** in examples and specifically col. 7 ln 23 or **Murao et al** example 1 and specifically col. 5 lns 24, col. 15 ln 63, col. 16 ln 48).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to adopt the polyethylene terephthalate material taught as being a conventional substrate material by either **Sakai et al** and **Murao et al**. One skilled in the art would have been motivated to adopt the polyethylene terephthalate material as



a choice in either Sakai et al and Murao et al in Iida et al and Kasuga with the expectation of having a reliable high Modulus material (Murao et al col. 5 ln 13-26 and to avoid warping and cracking Sakai et al col. 1 lns 51-53, 67, 68).

### ***Double Patenting***

8. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).



9. Claims 1 and 21 to 42 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 2 of copending Application No. 10/802,134.

Copending Application No. 10/802,134 claims a magnetic tape obviously inherently having the same structure as claimed in instant claims 1 and 21 to 42. This includes a magnetic tape having irregular raised and depressed pattern obviously inherently satisfying the relationship  $40 \leq 100BU/T \leq 70$  or  $40 \leq 100BL/T \leq 70$  claimed in No. 10/802,134

- with BU is the distance from the surface of the back coat layer to the position where the irregular raised and depressed pattern of the cut surface of the support on the side of the upper blade becoming 'locally maximal',
- BL is the distance from the surface of the back coat layer to the position where the irregular raised and depressed pattern of the cut surface of the support on the side of the lower blade becoming 'locally maximal' and
- T is the total thickness of the broad magnetic tape.

Though the instant claims do not claim a relationship in terms of the equation of copending Application No. 10/802,134, it is evident that satisfying the relationship the tape defined by the claims and specifically depicted as irregular raised and depressed pattern of a cut surface in Fig. 5 of 10/802,134 is the same as that of the instant claims defined in Fig. 5.

Cf comparison of the tape defined by the claims illustrated at Fig. 5 of SN 10/802,134 as the same or at least inherently the same as the instant claims defining the

<p>Instant Application No. 10/790,313</p>	<p>Copending Application No. 10/802,134</p>
<p>FIG. 5</p>  <p>disclosure defining</p>	<p>FIG. 5</p>  <p>disclosure defining</p>
<p>instant claims</p>	<p>copending SN 10/802,134 claims</p>

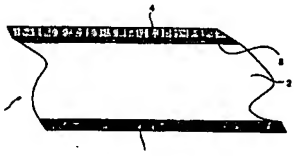
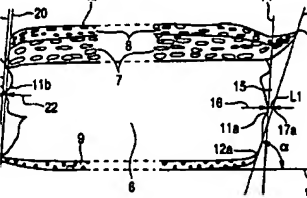
The patent application 10/802,134 disclosure is not cited as prior art additions analogous to the non-obviousness requirement of 35 U.S.C. 103 but is cited as defining terms in the claims as definitions for claimed features, hence are properly used in the double patenting rejections - see *General Foods Corp. v. Studiengesellschaft Kohle mbH*, 972 F.2d 1272, 1279, 23 USPQ2d 1839 (Fed. Cir. 1992).

As regards the dimensions and materials of claims 27 to 31 and claims 37 to 42 are defined by SN 10/802,134 see ¶ [0036], ¶ [0039], Example I ¶ [0055], and Example II ¶ [0063]. The patent application disclosure is not cited as prior art additions, but as defining the layers claimed in patent application 10/802,134. As definitions for claimed features the disclosed meaning give the limitations of these features, hence are properly

used in the double patenting rejections looked to solely for the purpose of determining what has been patented<sup>1</sup>.

10. Claims 1 and 21 to 42 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 to 11 of US Patent 70045228.

Patent 70045228 claims a magnetic tape obviously inherently having the same structure as claimed in instant claims 1 and 21 to 42 since the claims of patent 70045228 includes a magnetic tape having irregular raised and depressed pattern. The claimed in magnetic tape comprises a coating layer containing ferromagnetic powder and a binder with a support and a back layer on a cut plane of the tape, an apex of a biggest convexity of the support does not protrude from a line connecting an apex of a biggest convexity of the coating layer and an apex of a biggest convexity of the back layer the claim limitations are defined in the illustration as well - cf Fig. 5 of instant Application No. 10/790,313 with Fig. 2 of Patent 70045228:

Instant Application No. 10/790,313	Patent 70045228
<p data-bbox="207 1556 261 1577">FIG. 5</p>  <p data-bbox="493 1713 764 1745">disclosure defining</p>	 <p data-bbox="1131 1713 1403 1745">disclosure defining</p>

<sup>1</sup> *General Foods Corp. v. Studiengesellschaft Kohle mbH*, 972 F.2d 1272, 1279, 23 USPQ2d 1839 at pg 1846 (Fed. Cir. 1992)

instant claims	Patent 70045228 claims
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### *OTHER REFERENCES*

**Kubo et al** (US 6103340) is cited as being of interest, further teaching the convention of polyethylene terephthalate substrate (col. 7 ln 31) with back coated magnetic tape.

### CONCLUSION

The claims are 1 and 21 to 42.

- Restriction has been required.
- No claim has been allowed.
- Information Disclosure Statement has been received.

### INQUIRES

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Louis Falasco, PhD whose telephone number is (571)272-1507. The examiner can normally be reached on M-F 10:30 - 7:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol D. Chaney, PhD can be reached at (571)272-1284. The fax phone number for the organization where this application or proceeding is assigned is (571)273-8300.

Art Unit: 1773

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
LF  
06/06

  
**CAROL CHANEY**  
SUPERVISORY PATENT EXAMINER